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Abstract of the Disclosure

An image processing apparatus includes a replacement unit and interpolation unit. For the pixel value of a pixel that need not be replaced among pixel values contained in original image data, the replacement unit adds replacement information indicating non-replacement of the pixel value to the pixel value, and outputs the pixel value as replacement information-added image data. For the pixel value of a pixel that needs to be replaced, the replacement unit replaces the pixel value by a predetermined pixel value, adds replacement information indicating replacement of the pixel value to the replaced pixel value, and outputs the pixel value as replacement information-added image The interpolation unit outputs interpolated pixel values having all color information by interpolating a pixel value at an interpolation point for each color information on the basis of a predetermined arithmetic expression from the pixel values of pixels of the same color falling within a predetermined interpolation region containing the interpolation point among all replacement information-added image data output from the replacement unit. When replacement information of any pixel used for calculation indicates replacement, the interpolation unit uses an arithmetic expression different from the arithmetic expression.